

AG Venue Customizer Shared Application

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Quality of Experience

- Collaboration is hard!
 - Not enough to throw technology at the problem
- Quality of Experience
 - The “touchy-feely” part of collaboration
 - Measure of human experience, not technology
- Making it work
 - Task: What is the user trying to do?
 - Need: What do they need to accomplish the task?
 - Services: What services meet the needs?

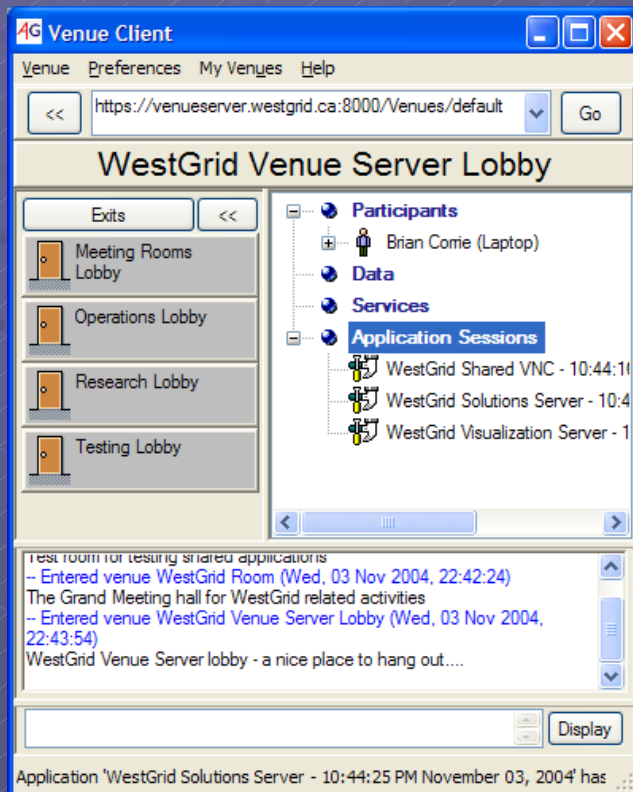
Quality of Experience and AccessGrid

- Identifying tasks and needs
 - What is the user trying to accomplish?
- Create task specific AG venues
 - Populate venue with services that meet needs
 - Rank services based on importance to task
- Deploying task specific AG services
 - Configure node services appropriate to the task
 - Start/stop/configure node services “auto-magically”

AG Venue Customizer (AVC)

The AVC Process

Add Shared App



AVC Task Manager

Choose task
Choose bandwidth

Store Task
and Services

AVC User

Download task
Configure services

Change Task

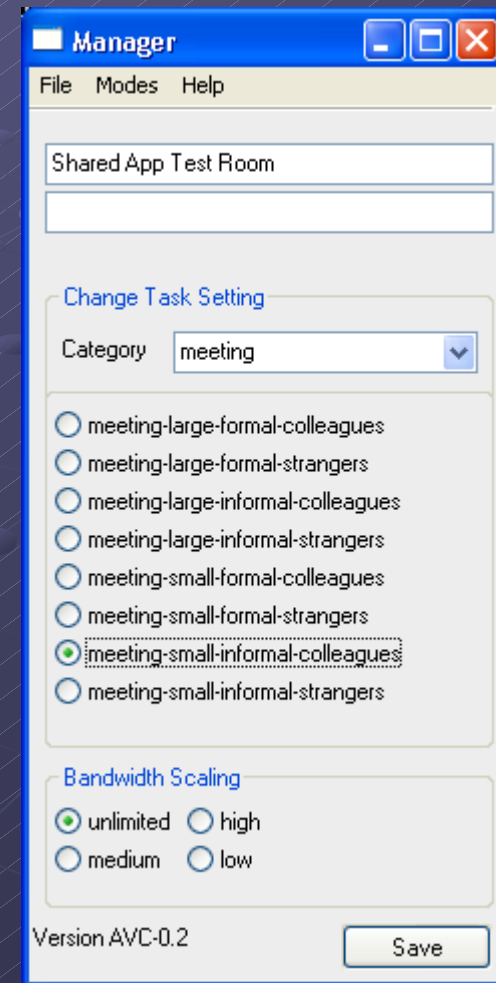
VideoService

VisService

AudioService

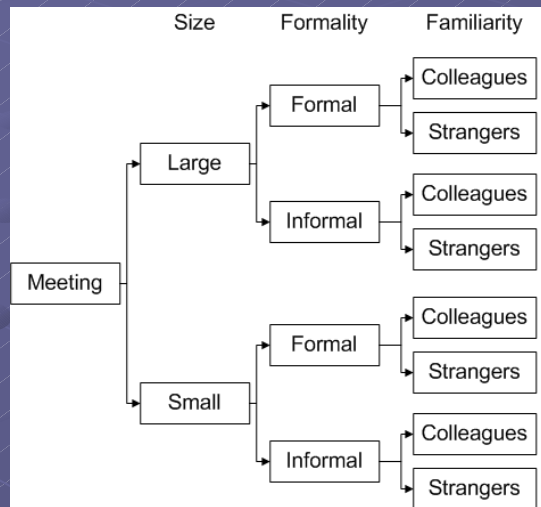
AVC Features

- Set of common tasks provided
 - Service configuration based on CSCW research
- User customizable tasks available
 - Users can add their own tasks
- Controls node services directly
 - Works on multi-machine nodes
 - Specialized node services
- Adapts services based on network
 - Adaptation sensitive to task



AVC Tasks

The Meeting Task



Task	Communication Needs				
	Facial Expression	Speech	...	Shared Workspace	Shared Presentation
Large formal meeting with colleagues	9	10		4	5
Large informal meeting with colleagues	8	10		4	5
Small informal meeting with colleagues	7	8		4	5

Task Categories

- Meetings
- Education/Lecture
- Collaborative work
- Presence

AVC Service Parameters

● Definition for each service quality level

[auditory8]

audiosilence = 0

audiofrequency = 16K

streamname = Quality 8

audiolecture = 0

audioprimary = L16

[visual6]

maxbw = 1800

update_note = 0 Quality 6

framerate = 24

videosize = normal

bandwidth = 1024

defaultformat = h261

transmitonstartup = true

quality = 81

Custom node services needed for more parameter control

AVC Node Service Control

- Controls launching/settings of AG node services
- Audio service controlled via RAT parameters
 - audio encoding (L16, PCM, DVI, GSM)
 - audio sampling rate (16 kHz, ...)
 - silence suppression (off, ...)
 - lecture mode (off, ...)
- Video service controlled via VIC parameters
 - frame rate (24, ...)
 - video size (normal, ...)
 - video encoding (H.261, ...)
 - bandwidth (64 – 4096)
 - max bandwidth (256 – 4096)
 - quantization quality (71 – 100)

Acknowledgements

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● For more information:

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- Downloads: iit130033.iit.nrc.ca/AVC/index.html

Demos/Questions...